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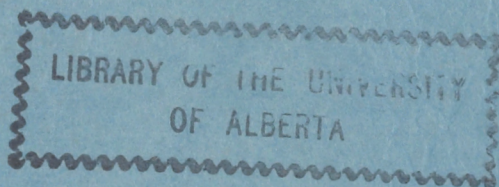
ONE WEEK LOAN

OF THE

GENERAL SCIENCES

EASTERN ROCKIES FOREST
CONSERVATION BOARD

FOR THE
FISCAL YEAR
1949 - 50



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CALGARY, ALBERTA

31st MARCH, 1950

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ANNUAL REPORT

EASTERN ROCKIES FOREST CONSERVATION BOARD

of the

EASTERN ROCKIES FOREST CONSERVATION BOARD

Minister of Resources and Development,
OTTAWA, ONTARIO

for the

Year

I have the honour to submit herewith the annual Report of the Eastern Rockies Forest Conservation Board for the fiscal period 1st April 1949 - 31st March 1950, pursuant to the provisions of the Mountain Forest Conservation Act.

FISCAL YEAR

1949-50

Howard Kennedy,
Chairman

Calgary, Alberta
2nd June 1950

Calgary, Alberta

31st March 1950

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EASTERN ROCKIES FOREST CONSERVATION BOARD

To

The Honourable R.H. Winters,
Minister of Resources and Development,
OTTAWA, ONTARIO.

Sir:

I have the honour to submit herewith the annual Report of the Eastern Rockies Forest Conservation Board for the fiscal period 1st April 1949 - 31st March 1950, pursuant to the provisions of the Eastern Rocky Mountain Forest Conservation Act of 1947. I am

Your obedient servant,

Howard Kennedy,
Chairman.

Calgary, Alberta,
2nd June 1950.

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EASTERN ROCKIES FOREST CONSERVATION BOARD

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To

The Honourable Nathan E. Tanner,
Minister of Lands and Forests,
EDMONTON, ALBERTA.

Sir:

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Your obedient servant,

Howard Kennedy,
Chairman.

Calgary, Alberta,
2nd June 1950.

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REPORT OF BOARD MEMBERS

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PERSONNEL

Howard Kennedy, C.B.E., M.C., B.Sc. Chairman of the Board
J.M. Wardle, C.B.E., B.Sc. Dominion Member of the Board
H.G. Jensen, LL.B. Alberta Member of the Board
J.D. Middlemass, E.D., B.Sc. Secretary
E.S. Fellows, M.Sc.F. Chief Forester
C.R. Cornish, B.A.Sc., M.E.I.C. Acting Chief Engineer

REPORT OF BOARD MEMBERS

The Eastern Rockies Forest Conservation Board has experienced another satisfactory year.

The programme forecast in the report for 1948-49 has been fully carried out and in most instances the schedules set have been exceeded.

Two major construction contracts were awarded totalling seventy-two miles of Trunk Road construction (20-foot top) and they have both been completed. In addition an extra nine miles of Trunk Road was built by day labour, mainly with hired equipment operating under the supervision of the Forest Service.

Four other projects of construction of secondary roads (14-foot top) were carried out by day labour using a combination of Board equipment and hired equipment. These totalled sixty-five miles.

A contract has been let for the completion of the remaining link of the Bow-Crow Trunk Road during the summer of 1950 and the extension of the Trunk road built to a narrower width commencing near Morley and extending between the Bow River and Red Deer River will be commenced. In addition there will be several extensions of the secondary road system.

Stockpiling of culvert and bridging material for the coming season's work has been provided.

The programme of surveys concerning the effects of grazing, vegetation cover, meteorological studies and location of look-outs has been launched and excellent progress made. These surveys will necessarily be projected over several years.

In this connection the United States Forest Service loaned the services of Dr. C. J. Kraebel to the Board for a three-weeks' period to discuss the manner in which this work might best be carried out. His report indicates that the Board's programme has been well conceived and his remarks are extremely re-assuring concerning the conditions on the Eastern Slopes.

A feature of the summer's activity was a visit to the Board's operations in the Kananaskis area by the Directors and members of the Canadian Forestry Association during the month of September. The delegates were entertained jointly by the Calgary Power Company, the Federal Forestry Branch and the Eastern Rockies Forest Conservation Board and expressed keen interest in the conservation measures undertaken.

It is with regret that we announce the retirement at the end of November, on account of health, of C. M. Walker, Chief Engineer. The Members of the Board wish to take this opportunity of expressing their obligation to him for the major role he played in successfully launching the

works programme of the Board in its early days. He has been replaced by Mr. C.R. Cornish who was serving under him as his assistant and who has been associated with him for many years.

Again the staff has given loyal service and we commence the coming year with a tried and tested group of employees.

Due economy has been observed and the Board again reports that it has functioned well within the funds available. Public relations have been most satisfactorily maintained throughout the year.

It is also gratifying to be able to say that both Governments have afforded the Board a high degree of co-operation which has greatly facilitated its work.

Details of the Board's operations of the past year are given in the reports of the Secretary, the Chief Engineer and the Chief Forester included herewith.

Howard Kennedy, Chairman
J.M. Wardle, Dominion Member
H.G. Jensen, Alberta Member

REPORT OF THE ACTING CHIEF ENGINEER
C.R. Cornish

Under the direction of Mr. C.M. Walker, who retired as Chief Engineer at the end of November, the Engineering Division had a most successful year.

Priority in engineering work continued to be given to the completion of a network of roads primarily designed to provide access for forest protection work in the area under the Board's jurisdiction. The principal efforts of the Engineering personnel were consequently devoted to making route surveys and supervising construction of roads and concomitant drainage structures.

In accordance with the Board's general policy, a main Trunk Road running approximately north and south will eventually traverse the forest reserves of the Eastern Slopes. This road will form the backbone of a skeletal system of secondary roads and truck trails serving all parts of the three forest reserves.

RECONNAISSANCE Reconnaissance was made of the area
SURVEYS north of the Bow River through to
 the Clearwater River and a route
selected for the Trunk Road in this section. The
chosen route will link the Aura, Red Deer and
Clearwater Ranger Stations and will join the
Trans-Canada Highway near Morley. It will form the
northward continuation of the Coleman - Seebe road
now under construction.

Reconnaissance inspections were carried out for proposed secondary roads at Johnson Creek, Red Deer West and Meadows - Strachan, and in the Deadman's Pass region. Reconnaissance was also made of the proposed routes for a number of roads to timber sales and mining leases.

LOCATION SURVEYS Location surveys were completed during the season for the section of Trunk Road between Coleman and the south end of the Dominion Experimental Station at Seebe. Two full scale location parties were used in this work and seventy-one miles of final location survey line was staked in the field. Site surveys were made of sixteen major stream crossings.

On the completion of field work the locating engineers and senior assistants were engaged in compiling and plotting field notes and preparing quantity estimates preliminary to next season's construction work.

ROAD CONSTRUCTION (a) Trunk Road. By agreement with Provincial Government authorities the Engineering Division of the Board assumed direct responsibility for the supervision of contract work on the Trunk Road. Two contracts were let in April and satisfactorily completed during the fiscal year. All construction engineering was handled by the Board's personnel.

Contract No. 1 covered construction of the Crow Trunk Road northward from Coleman for a distance of forty miles. The successful bidder.

was the New West Construction Company, Limited of Edmonton. Contract No. 2 covering construction of the Bow Trunk Road southward from the Dominion Experimental Station at Seebe for a distance of thirty-two miles was let to the Assiniboia Engineering Company, Limited of Calgary. Included in the contracts were the erection of ten major bridges from pre-framed and treated timber supplied by the Board.

In addition to the seventy-two miles of Trunk Road built under contract, some nine miles of Trunk Road were constructed by day labour crews and rented equipment. The latter work was under the direction of the Alberta Forest Service with engineering supervision by the Board engineers.

Gravel surfacing was not applied to any of the constructed road, as this can best be done after a winter's settlement has taken place.

(b) Secondary Roads. A substantial programme of secondary road construction was undertaken in the Crowsnest and Bow River Forest Reserves and especially in the Clearwater Forest which is not yet served by the Trunk Road.

In many cases secondary road standards were obtained by revisions and improvements to existing roads. In all cases the routes proposed to be built or improved were considered in relation to the eventual road system and assessed for their value in

administrative forest protection work.

A total of sixty-five miles of secondary road was constructed or improved during the year, under supervision of the Alberta Forest Service with engineering advice from Board personnel. The work was done by day labour crews and Board equipment with additional rented equipment.

A brief summary of the roads built or improved is as follows:

The Chungo Road running northwards from Nordegg for a distance of thirty miles to Chungo River and Brown Creek was improved and drainage structures built.

The Red Deer Road from the eastern boundary of the Clearwater Reserve to the Red Deer Ranger Station was re-built for a distance of fourteen miles.

The Red Deer West Road was built for a distance of four miles westerly from the Red Deer Ranger Station.

The Highwood Road was re-built from the eastern boundary of the Bow River Forest past Sentinel Ranger Station to join the Trunk Road, a distance of seven miles.

The Johnson Creek Road was re-built from Willow Creek Ranger Station westerly for a distance of ten miles to join the Trunk

Road in the Livingstone Valley.

(c) Truck Trails. A total of thirty-four miles of truck trails or tote roads were constructed to open the route of the Trunk Road and provide access roads for location survey parties. This work was also under the Alberta Forest Service and was mainly done by use of Board equipment.

BUILDING CONSTRUCTION Substantial progress was made towards fulfilment of the Board's policy of providing improved living quarters for the Ranger staff. The building programme includes construction of a number of small houses and cabins with installation of modern plumbing and electric power. The work was done by use of Ranger labour and was administered by the Alberta Forest Service.

In the Clearwater Forest Reserve a new ranger house was completed at the Nordegg Station and another house at the Shunda Station was 75% completed. Construction was advanced on a new cottage and a store-house at other administrative sites.

Three new ranger cottages were completed at various administrative sites through the Bow River Reserve. A garage and an addition to an existing house were also substantially completed. Work was well advanced towards completion of two storehouses and a bunkhouse in this Reserve and two power and lighting plants were installed.

A cottage, a bunkhouse and a storehouse were completed at sites in the Crowsnest Forest Reserve and work was well advanced on a bathroom addition to an existing house.

BOUNDARY SURVEY While emphasis for the time being was placed on road work a start was also made on re-tracing and marking the Boundaries of the reserves adjoining travelled lands. The survey was started following the regular survey season and, despite very severe weather, some twenty-nine miles of the West Porcupine district boundary was surveyed and marked.

The Engineering Division was fortunate in obtaining the services of a number of qualified engineers who are also deeply interested in the broad field of conservation and in the management plans being developed for the reserves. Since roads form an integral part of forest protection planning, all road routes have been selected in co-operation with the Chief Forester. In other phases of planning also, the spirit of co-operation and mutual interest between the Forestry and Engineering Divisions of the Board has been maintained to a high degree. The experience and local knowledge of the Senior Superintendent of the Alberta Forest Service has proved most valuable in planning future engineering projects and has been freely given.

REPORT OF THE CHIEF FORESTER
E. S. Fellows

The activities of the past year fall into two groups. First, those aimed at a gradual strengthening of general administration, and second, fact-finding surveys or preliminary undertakings for such surveys. In the administrative field improvements in facilities for fire detection and fire suppression have been made, as well as significant advances in communication methods. There have also been changes in the organizational set-up which have led to increased efficiency and closer supervision both of the forest personnel and of commercial operations within the Forest Reserve.

Fact-finding activities have been aimed directly or indirectly at discovering more about the watershed characteristics of the area and at bringing to light any watershed conditions which may be less than satisfactory.

All these phases of the program are discussed more fully below.

FOREST PROTECTION

FOREST FIRES	The 1949 forest-fire season was a moderately favourable one judged by any standard, and in view of the special circumstances involved, may be considered as quite satisfactory. In all there were 24 fires within the Forest Reserve, eleven of which were started by lightning. Of the remainder, nine were started by construction activities, one was caused by a lumbering operation, and three were the result
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of unextinguished camp fires. Extensive road-building and hydro-electric power developments were in progress throughout the entire fire season in the course of which thousands of acres of forest land were cleared and the brush burned. It is a credit to all concerned that only 111 acres were accidentally burned on all these projects combined, in spite of a tremendous potential hazard. The other man-made fires caused insignificant damage, thanks chiefly to prompt action of Forest Officers. Lightning was the worst enemy in 1949 and was responsible for 5417 acres being burned. Of this, 4760 acres went up in a single blaze which gave real meaning to the word "wildfire". During the early stages of this fire the rate of spread was approximately ten acres per minute. Such are forest-fire conditions in the mountains at their worst.

The timber losses in these fires amounted to $10\frac{1}{2}$ million feet board measure of sawlogs, 43,500 cords of smaller merchantable timber, and 491 acres of young growth.

In addition to the fires within the area under the Board's control, Forest Reserve personnel directed, or assisted in, fighting 27 fires outside but near the boundaries of the Reserve.

At no time during the fire season was it necessary to close the Forest Reserve to public travel.

DEVELOPMENTS Twenty-eight new power-driven pumps
 IN and an adequate supply of hose have
 FIRE CONTROL been added to the fire-fighting
 facilities on the Forest Reserve, in
 addition to a substantial quantity of hand tools
 and miscellaneous accessories. A few of these new
 fire-pumps are of a comparatively new design
 incorporating high pressures and economical
 dispersal of water in the form of fog which shows
 promise of making the use of water in fighting
 fires in the mountains much more feasible than has
 been the case up until now.

Eight meteorological stations were
 set up during the summer of 1949 for the purpose
 of determining fire-hazard and to gather information
 useful in hydrologic studies of the area. Preparations
 were in progress at the end of the year to extend
 the chain of stations and improve, and at the same
 time simplify, the equipment used.

Experiments have been continued with
 short-wave frequency modulation radio equipment for
 communication within the Forest Reserve, and late
 in the year the decision was reached by the Board
 to accept this medium of communication as the basic
 system, after careful consideration of the cost and
 effectiveness of alternative methods. The task of
 designing and installing the new radio network is
 being directed by the Superintendent of Radio of the
 Alberta Department of Lands and Forests.

An extensive survey of the southern
 portion of the Forest Reserve was made during 1949

with a view to finding the best sites for lookout towers or cabins. Nearly fifty sites were investigated, the majority on the ground, but some only by mapping, and from the best of these plans were formulated for an integrated detection system. A similar program of mapping and photography in connection with lookout sites will be carried out in the northern area in 1950. This area, although the larger of the two parts, has normally had a lower incidence of fire because of its relative inaccessibility.

The Board co-operated with the Alberta Department of Lands and Forests in financing a special forest-fire publicity campaign through the medium of radio and newspaper announcements at the height of the fire season. At other times, normal publicity through posters and the personal contacts of forest rangers with the public was maintained.

The continued construction of new roads, both those financed by the Board and those which the Board permitted forest users to construct, has improved fire control.

PROTECTION AGAINST INSECT DAMAGE	Generally speaking, the Forest Reserve is remarkably free from the threat of abnormal insect damage. However, there are two exceptions to this observation. One is an outbreak of the lodgepole pine needle-miner (<i>Recurvaria milleri</i>) in the valleys of the Dormer, Panther and North Saskatchewan Rivers mentioned in last year's report. This outbreak increased in extent during 1949, but special control measures applied to this
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specific area do not yet seem to be advisable. There are indications that the epidemic may be on the decline next year as the result of increasing parasitizations and the very severe winter just passed. Spruce bud-worm (*Choristoneura fumiferana*) continues to be fairly widespread, but damage is light in all cases. There are no known instances in the Reserve of this insect causing the death of timber stands. At worst there appears to be only a retarding of tree-growth. Both these insect outbreaks will be carefully watched, however. During 1949 Forest Rangers on the Reserve continued to make collections of forest insects for the information of the Forest Insects Survey, and personnel of the latter organization made numerous examinations on the East Slope area.

PROTECTION AGAINST DISEASE

There are no known epidemics of tree diseases within the Forest Reserve. With the exception of mistletoe (*Arceuthobium*) on lodgepole pine which is capable of spreading to serious proportions, the fungus damage to the forest is pretty well confined to normal agencies of decay. The objective of the Board is to so manage the forests as to keep them in a healthy and vigorous growing condition and thereby reduce the threat of disease and insect damage to a minimum.

RANGE MANAGEMENT

GRAZING

A total of nearly 25,800 head of cattle, horses and sheep ran on

the Forest Reserve during the grazing season of 1949. This is some 1300 less than the previous year. Of the total number of animals accommodated, about 22,000 were cattle, 1150 were horses and 2650 were sheep. Nearly 95 per cent of the grazing takes place south of the Bow River.

Losses from all causes were reported to be 77 head, or one-third of one per cent, which is considered very satisfactory. The cattle entered and left the Forest Reserve in very good condition, although the season was rather dry and grass less abundant than normal. For this reason there was a slight tendency to over-grazing, but no serious or permanent damage from this cause resulted.

Late in the year a special survey of range conditions in relation to game animals was made in parts of the Crowsnest Forest, and this revealed that an over abundance of elk was causing appreciable deterioration in general range and watershed conditions.

RANGE CONDITIONS A comprehensive survey of range conditions on the Forest Reserve was begun this year under the direction of Mr. W. R. Hanson, Assistant Chief Forester of the Board. This survey covered the greater part of the Crowsnest Forest and will be continued in other areas next summer.

The survey was conducted by a six-man crew which made a scientific analysis of vegetal cover and range conditions by range types.

Range-type mapping was done on aerial photographs in the field, and subsequently the information was transferred to specially prepared planimetric maps in the office.

The purpose of the survey is to determine the extent, character, and general condition of the forage resources, without which data it is impossible to draw up comprehensive management plans. The ultimate objective is to evolve methods of use which will combine the best interests of livestock management and optimum watershed conditions. These two elements are by no means incompatible, but require study in order to achieve a proper balance.

Broadly speaking, range conditions were found to be fair to good in the Crowsnest Forest. The most unsatisfactory conditions observed were found to be the result of opening the grazing season too early and of poor distribution of the stock over the grazing areas. In some cases these practices were promoting accelerated erosion.

By the close of the year work was in progress on management plans for individual grazing allotments as a means of promoting better grazing and watershed conditions.

Special attention is being given to range for game animals since, if this aspect is not given due consideration, management plans for the grazing of domestic animals may be rendered ineffectual.

Over most of the rangeland examined, rodents, chiefly ground squirrels and pocket gophers, are doing appreciable damage and appear to be on the increase. It is believed that control measures will soon be needed if a significant drop in the population of these animals does not soon occur from natural causes.

Several permanent enclosure plots have been established. The chief function of these plots will be to provide an undisturbed standard of comparison for judging range conditions. A system of range-condition classes has been devised as means of measuring the degree of effectiveness of management plans.

FOREST MANAGEMENT

LOGGING

Twelve applications for timber sales were submitted to the Board during the year, and of these nine were approved. Two of the sales approved by the Board did not materialize. In addition, a number of permits for small quantities of green timber were issued, and the salvage of fire-killed timber continued. Seven small timber sales which had been in effect for several years were satisfactorily completed and officially "closed out". There was, therefore, no net change in the number of active timber sales during the year.

A total production of about $31\frac{1}{4}$ million feet board measure of lumber was removed from the Forest Reserve. This included both green and fire-killed material produced from all

timber sales and permits and the only active Timber Berth on the Reserve. Round timber, in the form of poles, piling, mine timber, etc., to a total of just over four million lineal feet was also removed. A very large part of this was salvaged, fire-killed timber. Small quantities of firewood, fence rails, and other miscellaneous forest products were cut under permit, chiefly for local use.

There has been a noticeable improvement in the way in which logging operations are being conducted within the Forest Reserve. This is partly the result of more stringent requirements laid down by the Board, but is largely attributable to the greater amount of supervision made possible by increasing and re-organizing the administrative personnel.

Timber sales have been approved only when mature, or more often over-mature, timber was involved. In such cases it is in the best interest of forest and water conservation to remove, with proper safeguards, the decadent stands of timber to make way for a more healthy and vigorous crop.

OTHER
COMMERCIAL
ACTIVITY ON
THE RESERVE

Trapping, coal mining, quarrying, oil production and waterpower development do not come under the jurisdiction of the Board except insofar as these activities may

disturb the vegetation or the soil. Several applications for permission to engage in enterprises of this kind have been made to the Board and none has been refused or obstructed. Nevertheless, the Board has laid down more stringent

requirements as to the way in which the surface may be disturbed with particular emphasis on activities which may result in erosion and the silting of streams. Strip-mining and the construction of roads are two types of works which are receiving close attention and, as time goes on, it may become necessary to enforce special practices to maintain watershed values.

The most extensive development on the Reserve at the present time is the Spray Lakes hydro-electric power project of Calgary Power Limited. By the end of the year roughly 4,000 acres of forest land had been cleared by the company to provide reservoir space, transmission line right-of-way and a canal. This clearing and burning of brush has been carried out, at the direction of the Board, in a thorough and satisfactory manner. The greater part of this phase of the project is completed, but some further clearing and burning remains to be done.

FOREST INVENTORY	Preliminary information needed in the preparation of a forest inventory is still being gathered.
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So far, most of this work has been done by the federal Forestry Branch which is kindly preparing forest cover maps of a large part of the East Slope area from aerial photographs. A small amount of field work was done last summer by the Board's personnel by way of gathering data on the volume and rate of growth of standing timber, but this activity was incidental to the range survey. During the 1950 season, much more emphasis will be placed on this project.

By the end of the year two forest

cover map sheets prepared by the Federal Forestry Branch had been completed and printed and many more were in the course of preparation.

EXPERIMENTAL WORK

A number of experimental seeding and planting plots established by the Board in 1948 were examined several times during 1949. It was then too soon to judge the success of either the natural or the artificial seeding which had been done, partly because any seedlings there may be are so small as to be almost impossible to find among the grass and weeds, and partly because any estimate of the then surviving seedlings might be very misleading. The success of the planting experiment could be accurately assessed, however, and can be reported as an almost complete failure on the slopes and hilltops. On the bottomlands approximately half the seedlings survived the first year which, from a commercial point of view, would be classed as a failure, but which might be considered worth while for watershed management if it were determined that trees in such locations serve the purpose better than other forms of vegetation. A greater rate of survival, on the lowlands at least, might be brought about by improved planting techniques.

HYDROLOGY

Because much more extensive studies of watershed management have been made in the United States than in Canada, the Chairman of the Board requested the assistance of the Chief of the United States Forest Service in making a

general appraisal of watershed conditions on the area under the Board's control. Mr. Lyle F. Watts very kindly made available to the Board the services of Mr. C.J. Kraebel, Specialist in Watershed Management at the California Forest and Range Experiment Station, and a widely recognized authority in his field. Mr. Kraebel spent three weeks examining the area and discussing the problems involved with officials of the Board and the Alberta government service.

In his report to the Board, Mr. Kraebel points out that the area is in essentially satisfactory condition, but that, as the result of the anticipated agricultural and industrial development of the region, heavier demands upon all the resources of the Forest Reserve may reasonably be expected. For this reason he urges great vigilance in seeing that watershed values are not impaired by unwise exploitation of the area. At the same time he suggests that the wise use of the resources may be more beneficial than detrimental to stream flow. Mr. Kraebel recommends a continuation of present plans and policies and stresses the need for a period of fact-finding study before any large-scale or radical changes in vegetal cover by artificial means are attempted. In the meantime, an effort should be made to give the area the best possible protection from fire, insects, and disease, and policies should be followed which will correct any deterioration of watershed values which have occurred locally.

During 1949 the Water Resources Division of the federal Department of Resources and Development has very kindly co-operated in

establishing five gauging stations on certain of the main streams leaving the Forest Reserve. This program will be continued until the flow in all major streams rising on the East Slope is continuously gauged. Under this arrangement the Board is defraying the initial expense of setting up the gauging stations and the Water Resources Division has agreed to maintain them as part of its regular service. These stations will provide information of fundamental importance in studying the hydrologic characteristics of the drainage basins involved, and will aid in determining the effectiveness of the Board's policies through the years.

As mentioned earlier, the Board has established several meteorological stations, and proposes to extend this phase of its activities. It is of the greatest importance to know the character and extent of the precipitation over the area - particularly the snow-fall, since it is mainly the difference between stream flow and precipitation which will tell the story of the influence of vegetal cover (and the manipulation of that cover) on the water supplied from the area.

Erosion is a factor of extreme importance in watershed management. Fortunately it is not a widespread condition on the Forest Reserve, but it is one which occurs in small but critical areas. Most commonly it may occur where improper logging methods are practised, where strip-mining is carried on, and where

roads are built without due attention to proper drainage. In such cases gully erosion is the common form and this can start with alarming speed and may be difficult and costly to check. For this reason the Board is paying special attention to activities of these kinds. Over grazing may result in either sheet or gully erosion, and plans are being drawn up to minimize the danger from this cause.

ADMINISTRATIVE POLICY

At the beginning of the fiscal year 1949-50 a new administrative set-up was inaugurated. The two greatest changes involved the establishment of the office of the Senior Superintendent of the Forest Reserve, who is the principal liaison officer between the Board and the Alberta Department of Lands and Forests, and the re-establishment of the Crowsnest Forest as a separate administrative unit of the Forest Reserve. Both these changes have led to greatly increased efficiency.

In one case a District Ranger Station has been moved in order to make it more accessible to the public and to give the Ranger a better opportunity to cover his District. In another case a Ranger District has been abolished since it no longer performed a useful function in that capacity as the area could be more effectively administered from headquarters.

The Board has established a small technical library primarily for its own

use. However, the facilities of this library have been made freely available to personnel of the East Slope staff of the Alberta Forest Service through a mailing system. This service has met with a most encouraging response.

It is a pleasure to report that the staff of this Division has received splendid co-operation from the personnel of the Alberta Forest Service and other branches of the Alberta Department of Lands and Forests, the federal Forestry Branch, the Water Resources Division of the federal Department of Resources and Development, and from all other governmental agencies, federal or provincial, we have had occasion to deal with. We have also found the great majority of forest-users with whom we have had dealings have adopted a most co-operative attitude toward the Board's problems and policies.

FINANCES

Little change in financial procedure took place during the year and three main accounts continued to be operated, all subject to audit as required by the Act.

(a) Maintenance Operating:

This account reflected the routine maintenance charges incurred by the Alberta Forest Service, acting as the Board's agent in its area of jurisdiction. To this account the Province contributed the sum of \$72,374.77 being the revenue derived from the area in question. A breakdown of the expenditure is shown in the accompanying balance sheet.

REPORT OF THE SECRETARY

J. D. Middlemass

During the fiscal year of 1949-50 the administrative pattern, initiated when the Eastern Rocky Mountain Forest Conservation Act was ratified on 1st April 1948, continued to work well. Re-organization of the administrative departments of the Governments of Canada and Alberta during the period now results in the Board being responsible to the Minister of Resources and Development in Ottawa and to the Minister of Lands and Forests in Edmonton.

MINUTES OF MEETINGS

Minutes of the twelve regular monthly meetings of the Board held during the year were recorded and distributed, as previously, to the respective Ministers.

FINANCES

Little change in financial procedure took place during the year and three main accounts continued to be operated, all subject to audit as required by the Act.

(a) Maintenance Operating:-

This account reflected the routine maintenance charges incurred by the Alberta Forest Service, acting as the Board's agent in its area of jurisdiction. To this account the Province contributed the sum of \$171,354.77 being the revenue derived from the area in question. A breakdown of the expenditure is shown in the accompanying balance sheet.

(b) Maintenance Administration:-

This account reflected the charges incurred in meeting the costs of the Board's own operations, which were increased to some extent during the year. Details are reflected in the accompanying balance sheet. Combined maintenance commitments are limited to an annual total not exceeding \$300,000.00.

(c) Capital:- All expenditures incurred for capital equipment and projects were charged to this account which was maintained by appropriations from the Government of Canada. The total so expended during the year amounted to \$1,624,020.23. It should be noted that expenditure from this account is on a cumulative basis, being restricted under the Act to \$6,300,000.00 for the first six years of the Agreement. Expenditures for the first two years, 1948-49 and 1949-50, amount to \$1,992,184.11.

A balance sheet as at 31st March 1950, duly certified, accompanies this report and reflects the Board's financial operations during the year.

REVENUE

A total revenue of \$171,354.77 for the year was derived by the Alberta Department of Lands and Forests from the operations in the Board's area of jurisdiction. The main sources were from timber and grazing dues and the amount received was turned over by the Department to the Board as its contribution to the Maintenance account.

CURRENT PROGRAMME

As required under the Act estimates were prepared and submitted in November 1949 to the respective Ministers for commitments during the 1950-51 fiscal period.

To finance this programme the Board has at its disposal the sum of \$300,000.00 for Maintenance account and a sum not exceeding \$1,157,815.89 for Capital account. This latter amount reflects the expenditure during the Board's third year of operation of the Capital account.

WORKMEN'S COMPENSATION

Due to the Board's increased payroll a further sum of \$5,000.00 was deposited with the Alberta Workmen's Compensation Board making a total deposit of \$10,000.00.

The accident record for the Board's own operations remained low with claims during the year amounting to \$270.39.

ANNUITY AND HOSPITAL BENEFIT PROVISIONS

During the year arrangements were made for staff members to come under the provision of the Alberta Blue Cross Hospital Plan on an optional basis.

The annuity plan arrangement with the Dominion Annuities Branch continued in force

and the Board's financial commitment in this regard amounted to \$2,332.20 as at 31st March 1950.

ROUTINE ADMINISTRATION

Banking arrangements, with the Board operating an account with a chartered bank in Calgary, continued to work satisfactorily.

Quarterly claims for expenditures by the Province of Alberta in the Capital and Maintenance accounts, duly certified and audited, were cleared regularly through the Board's office to the Department of Finance and reimbursement effected promptly.

Relations with officials of the Governments of Canada and Alberta continued to be most cordial and greatly facilitated the achievement of the Board's programme during the year.

Efficient and loyal team work by the office staff was prominent throughout the year and is gratefully acknowledged.

Yours faithfully,

Watson Sellar,
Auditor General.

Auditor General's Office

Ottawa, June 26, 1950.

The Chairman and Members,
Eastern Rockies Forest Conservation Board,
Calgary, Alta.

Gentlemen:

I have examined the accounts of your Board for the year ended March 31, 1950, and submit herewith the certified Statement of Assets and Liabilities as at that date, together with the following statements:

Capital Disbursements (Schedule I)
Disbursements for Forest Maintenance,
Protection and Management (Schedule II)
Proprietary Interest (Schedule III)
Fixed Assets - Moveable Equipment (Schedule IV)

The Schedule to the Eastern Rocky Mountain Forest Conservation Act, section 4(2), provides for an annual expenditure by the Board of not more than \$300,000, for maintenance and forest management service. As expenditures for fixed assets, deposits, advances, and increases in inventories and prepaid expenses, are regarded as applicable to future years' the costs of maintenance and forest management for 1949-50 was \$298,729.59, consisting of maintenance expenses of \$286,014.47, as shown by Schedule II to the Balance Sheet, and depreciation of fixed assets provided for maintenance purposes \$12,715.12.

Yours faithfully,

Watson Sellar,
Auditor General.

EASTERN ROCKIES FOREST CONSERVATION BOARD

(Established under the Eastern Rocky Mountain Forest Conservation Act,
and Operating under Agreement between the Dominion and the Province of
Alberta)

Statement of Assets and Liabilities as at March 31, 1950

Assets

Cash on Hand and in Bank		\$ 44,172.85
Province of Alberta - Advance		5,000.00
Inventories, at cost:		
Loose tools and small equipment	\$ 10,951.56	
Construction materials and supplies	<u>105,310.07</u>	
		116,261.63
Deposits and Prepaid Expenses:		
Deposits	12,332.20	
Prepaid insurance, etc.	<u>99.27</u>	
		12,431.47
Fixed Assets		
Capital improvements and works, per Schedule I	1,614,961.90	
Movable equipment, etc., per Schedule IV	\$376,800.37	
Less: Provision for De- preciation	<u>98,841.68</u>	<u>277,958.69</u>
		1,892,920.59
		<u>\$ 2,070,786.54</u>

Note: ^xThe Schedule to the Act, Section 20, provides that, upon termination of the agreement with the Province which is for a period of not less than the twenty-five years ended 1973, (a) all improvements or works resulting from the carrying out of the programmes of the Board shall belong to the Province, (b) all other property acquired by the Board shall belong to the Dominion.

Certified Correct

J.D. Middlemass,
Secretary.

Approved on behalf of the Board

J.M. Wardle,
Deputy Chairman.

Liabilities and Proprietary Interest

Liabilities

Government of Canada -

Advances provided under authority of:

Section 8(1) of the Act, for

capital expenditures

\$ 1,634,844.36

Less, Disbursements, per

Schedule I

1,624,020.23

\$10,824.13

Vote 185, contribution towards

annual maintenance expenses

173,014.08

Less, Disbursements, per

Schedule II

142,498.36

30,515.72

\$41,339.85

Reserved for Employees' Retirement Fund

2,332.20

Deferred Liability, for equipment taken over

from the Province, to be discharged on

termination of the agreement

30,537.37

74,209.42

Proprietary Interest^x

Balance at March 31, 1950, per Schedule III

1,996,577.12

\$ 2,070,786.54

I have examined the accounts of the Eastern Rockies Forest Conservation Board for the year ended March 31, 1950, and have obtained all the information and explanations I have required. In my opinion, the above Statement of Assets and Liabilities is properly drawn up so as to exhibit a true and correct view of the state of the Board's affairs as at March 31, 1950, according to the best of my information and the explanations given to me and as shown by the books of the Board.

Watson Sellar,
Auditor General.

EASTERN ROCKIES FOREST CONSERVATION BOARD

Statement of Capital Disbursements, to March 31, 1950, from Funds Provided by the Government of Canada (as authorized under Section 8(1) of the Act), for the location and construction of forest improvements, the making of a forest inventory, reforestation, and such other works and services as the Board may consider necessary in that area of the East Slope of the Rocky Mountains forming part of the watershed of the Saskatchewan River, as more definitely described in the appendix to the Act. The total expenditure is not to exceed \$6,300,000 during the six years ended March 31, 1954.

	<u>1949 - 50</u>	<u>To date</u>
Improvements and Works:		
New Construction -		
Roads and trails	\$ 1,352,465.74	\$ 1,509,297.37
Buildings	15,834.04	22,591.56
	<u>1,368,299.78</u>	<u>1,531,888.93</u>
Additions and Relocations -		
Roads and Trails	3,201.62	51,986.30
Buildings	519.37	4,781.33
	<u>3,720.99</u>	<u>56,767.63</u>
Other Expenses -		
Range and watershed survey	9,286.41	9,286.41
Stream gauging	4,888.82	4,888.82
Boundary survey	4,714.36	4,714.36
Visibility mapping	3,558.92	3,581.60
Film production	1,057.80	2,307.80
Radio survey	44.40	1,464.70
Meteorological stations	19.63	61.65
	<u>23,570.34</u>	<u>26,305.34</u>
Total - Improvements and works	<u>1,395,591.11</u>	<u>1,614,961.90</u>
Moveable Equipment:		
Tractors and heavy equipment	60,010.65	129,900.22
Cars and Trucks	16,952.86	69,482.84
Forestry Equipment	38,695.86	45,151.49
Camp and miscellaneous equipment	8,811.10	16,470.10
Office furniture and equipment	578.50	2,402.86
Radio equipment	-	4,226.48
	<u>125,048.97</u>	<u>267,633.99</u>
Additions to Stores and Other Inventories:		
Construction materials and supplies	101,769.71	105,310.07
Loose tools and small equipment	1,610.44	4,278.15
	<u>103,380.15</u>	<u>109,588.22</u>
Total disbursements	<u>1,624,020.23</u>	<u>1,992,184.11</u>

Note: By Section 5 of the Schedule to the Act, the remuneration and expenses of the members of the Board are to be paid by the government as each is respectively appointed. Such expenses are, however,

EASTERN ROCKIES FOREST CONSERVATION BOARDStatement of Disbursements for Forest Maintenance, Protection and Management
for the year ended March 31, 1950

	<u>Total</u>	<u>Disbursed by</u>	
		<u>The Board</u>	<u>The Province</u>
Maintenance Expenses:			
Salaries	\$ 188,454.18	\$ 46,287.50	\$ 142,166.68
Automotive expense	32,435.25	17,262.75	15,172.50
Wages	15,779.96		15,779.96
Travel	9,105.16	2,577.56	6,527.60
Printing, stationery and office supplies	7,076.92	6,012.32	1,064.60
Workmen's compensation	2,848.22		2,848.22
Miscellaneous supplies and expenses	2,132.61	34.99	2,097.62
Rental	6,751.32	3,807.70	2,943.62
Repairs and replacements (other than motor vehicles)	6,373.58	779.60	5,593.98
Uniforms for forest rangers	2,869.81		2,869.81
Freight, express and cartage	1,812.40	141.56	1,670.84
Special services	1,733.19	1,733.19	
Postage and Excise	978.10	337.83	640.27
Camp supplies	1,725.73		1,725.73
Provision for retirement fund	1,707.90	1,707.90	
Telegrams and Telephones	1,448.53	727.10	721.43
Other expenses	2,813.27	2,173.41	639.86
Interest earned on deposit with W.C. Board	31.66 cr.	31.66 cr.	
	<u>286,014.47</u>	<u>83,551.75</u>	<u>202,462.72</u>
Fixed Assets:			
Tractors and heavy equipment	243.10		243.10
Cars and Trucks	1,734.16	1,734.16	
Forestry equipment	5,010.76	1,362.03	3,648.73
Camp and miscellaneous equipment	3,671.45	982.34	2,689.11
Engineering equipment	946.63	946.63	
Office furniture and equipment	1,087.36	890.80	196.56
	<u>12,693.46</u>	<u>5,915.96</u>	<u>6,777.50</u>
Deposit with the W.C. Board	5,000.00	5,000.00	
Advance to the Province	5,000.00	5,000.00	
Increase in inventory of loose tools and small equipment	5,070.93	656.94	4,413.99
Prepaid expenses	74.27	74.27	
	<u>15,145.20</u>	<u>10,731.21</u>	<u>4,413.99</u>
Total disbursements	<u>313,853.13</u>	<u>100,198.92</u>	<u>213,654.21</u>
Contributed as follows:			
The Province of Alberta - as required by Section 8(b) of the Schedule to the Act, being the amount derived by the Province from the surface rights in the area under the Board's jurisdiction			\$ 171,354.77
Dominion of Canada - by vote 185 (Voted \$175,000 less unexpended portion \$32,501.64)			142,498.36
Total contributions			<u>313,853.13</u>

Note: By Section 5 of the Schedule to the Act, the remuneration and expenses of the members of the Board are to be paid by the government by whom each is respectively appointed. Such expenses are, therefore, not included above.

Schedule III

EASTERN ROCKIES FOREST CONSERVATION BOARDStatement of Proprietary Interest
as at March 31, 1950

Balance as at March 31, 1949	\$ 406,562.86
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Accretions during the year:

On capital account, per Schedule I -

Improvements and works	\$1,395,591.11
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Moveable equipment	125,048.97
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Additions to stores and other inventories	<u>103,380.15</u>
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	1,624,020.23
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On maintenance account, per Schedule II -

Fixed assets	12,693.46
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Further deposit with the Workmen's

Compensation Board	5,000.00
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Accountable advance - Province of

Alberta	5,000.00
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Increase in inventories

5,070.93

Prepaid expenses

<u>74.27</u>

<u>27,838.66</u>

2,058,421.75

Deduct:

Provision for depreciation of fixed assets, per Schedule IV	\$98,013.19
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Less: Provided in prior years	<u>38,210.84</u>
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59,802.35

Maintenance assets written off

1,134.17

Reduction in prepaid expenses

outstanding at the close of

the year

<u>908.11</u>

<u>61,844.63</u>

Balance as at March 31, 1950, transferred to Balance Sheet	\$ 1,996,577.12
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EASTERN ROCKIES FOREST CONSERVATION BOARD

Fixed Assets - Moveable Equipment

as at March 31, 1950

Book Value - cost, as at March 31, 1950

For maintenance purposes For capital purposes

Moveable Equipment -

Tractors and heavy equipment	\$ 243.10	\$ 129,900.22
Cars and Trucks	46,274.58	69,482.84
Forestry equipment	9,587.10	45,151.49
^x Equipment taken over from the Province		28,532.86
Camp and miscellaneous equipment	9,143.03	16,470.10
Engineering equipment	8,958.87	
Office furniture and equipment	5,840.04	2,402.86
Radio equipment		4,226.48
Columbia Ice Fields Gauge House	586.80	
	<u>\$ 80,633.52</u>	<u>\$ 296,166.85</u>
Totals		

Notes: ^x Entered at depreciated value as at April 1, 1948.

^{xx} Excess of amount realized over book value of equipment sold.

Schedule IV

		Provision for Depreciation to March 31, 1950	Depreciated Value
Total	Rate %	Amount	
\$ 130,143.32	20	\$ 40,006.57	\$ 90,136.75
115,757.42	20	42,565.55	73,191.87
54,738.59	10	6,577.06	48,161.53
28,532.86	-	xx 828.49	27,704.37
25,613.13	10	3,874.36	21,738.77
8,958.87	10	1,699.74	7,259.13
8,242.90	10	1,481.97	6,760.93
4,226.48	20	1,690.58	2,535.90
586.80	10	117.36	469.44
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\$ 376,800.37		\$ 98,841.68	\$ 277,958.69
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